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# N THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of:

Jeffrey A. Lee

Group Art Unit: 1731

U.S. Serial No.: 10/625,086

Examiner: UNKNOWN

Filing Date July 23, 2003

Docket No. 2159-A (FJ-99-39A)

For: METHOD OF BLEACHING AND

PROVIDING PAPERMAKING FIBERS

WITH DURABLE CURL

Mail Stop DD Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

## INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. 1.56, 1.97 AND 1.98

Sir:

Applicants submit herewith patents, publications, and other information of which they are aware, which they believe may be material, as defined in 37 C.F.R. 1.56(b), to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 C.F.R. 1.56(a). While information referred to in this Information Disclosure Statement may be material pursuant to 37 C.F.R. 1.56(b), the filing of this Information Disclosure Statement is not intended to, pursuant to 37 C.F.R. 1.97(h), constitute an admission that any patent, publication or other information referred to is, or is considered to be, material to the patentability of this invention. Pursuant to 37 C.F.R. 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information exists.

This information Disclosure Statement is filed within the period set forth in §1.97(b) because it accompanies the new patent application submitted herewith, is filed within three months of the filing date of a national application or within three months of the date of entry of the national stage as set forth in §1.491 in an international application. Or is believed to be filed before the mailing date of a first Office Action on the merits, whichever event occurs last. However, in the event that the first office action has been mailed, the Commissioner is authorized to charge any fees under 37 C.F.R.

1.17(p) or credit any overpayment to Account No. 50-0935.

This Information Disclosure Statement is filed after the period set forth in 37 C.F.R. 1.97(b), but is believed to be filed before the mailing date of a final action under §1.311, whichever occurs first.

- ☐ (1) The undersigned attorney certifies that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement;
- □ (2) The undersigned attorney certifies that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned attorney after making reasonable inquiry, was known to any individual designated in §1.56 (c) more than three months prior to the filing of this statement; or

☐ (3) This Information Disclosure Statement is accompanied by a transmittal letter in which payment of the fee set forth in §1.17(p) and required by 37 C.F.R. 1.97 (c) is authorized.

### **Patents**

- 1. U.S. Patent No. 2,008,892, issued July 23, 1935, entitled "Method of Manufacture of Pulp", of A.J.A. Asplund;
- 2. U.S. Patent No. 2,516,384, issued July 25, 1950, entitled "Mechanically Curling Cellulose Fibers", of *H.S. Hill et al.*;
- 3. U.S. Patent No. 3,023,140, issued February 27, 1962, entitled "Pulp Bleaching", of *C.K. Textor*;
- 4. U.S. Patent No. 3,382,140, issued May 7, 1968, entitled "Process for Fibrillating Cellulosic Fibers and Products Thereof", of *J.T. Henderson et al.*;
- 5. U.S. Patent No. 3,507,743, issued April 21, 1970, entitled "Bleaching of Wood Pulps with Reductive Bleaching Agents and Thiourea", of L.P. Cartsunis et al.;
- 6. U.S. Patent No. 3,773,610, issued November 20, 1973, entitled "Pressurized System for Pulp Refining Including Pressurized Double Disk Treatment", of *J.C. Shouvlin et al.*;
- 7. U.S. Patent No. 3,808,090, issued April 30, 1974, entitled "Mechanical Abrasion of Wood Particles in the Presence of Water and in an Inert Gaseous Atmosphere", of K.C. Logan et al.;
- 8. U.S. Patent No. 3,873,412, issued March 25, 1975, entitled "Mechanically Refining a Mixture of Kraft and Semichemical Pulp", of M.T. Charters et al.:
- 9. U.S. Patent No. 3,948,449, issued April 6, 1976, entitled "Apparatus for the Treatment of Lignocellulosc Material", of K.C. Logan et al.;
- U.S. Patent No. 4,036,679, issued July 19, 1977, entitled "Process for Producing Convoluted, Fiberized, Cellulose Fibers and Sheet Products Therefrom, of S.E. Back et al.;
- 11. U.S. Patent No. 4,187,141, issued February 5, 1980, entitled "Method of Producing Bleached Mechanical Pulp", of *B. Ahrel*;
- 12. U.S. Patent No. 4,259,148, issued March 31, 1981, entitled "Process for Making Refiner Mechanical Pulp", of L.R. Beath et al.;

- 13. U.S. Patent No. 4,409,065, issued October 11, 1983, entitled "Kraft Paper", of A. Kasser;
- 14. U.S. Patent No. 4,431,479, issued February 14, 1984, entitled "Process for Improving and Retaining Pulp Properties", of M. *Barbe et al.*;
- 15. U.S. Patent No. 4,455,195, issued June 19, 1984, entitled "Fibrous Filter Media and Process for Producing Same, of *H. B. Kinsley*;
- 16. U.S. Patent No. 4,455,237, issued June 19, 1984, entitled "High Bulk Pulp, Filter Media Utilizing Such Pulp, Related Processes", of *H.B. Kinsley*;
- 17. U.S. Patent No. 4,488,932, issued December 18, 1984, entitled "Fibrous Webs of Enhanced Bulk and Method of Manufacturing Same", of R.J. Eber et al.;
- 18. U.S. Patent No. 4,548,674, issued October 22, 1985, entitled "Process for the Regeneration of Waste Paper", of *J. Hageman et al.*;
- 19. U.S. Patent No. 4,734,160, issued March 29, 1988, entitled "Method of Two-Stage Peroxide Bleaching of Mechanical or Serni-Mechanical Pulp", of S. Moldenius;
- 20. U.S. Patent No. 4,756,798, issued July 12, 1988, entitled "Process for Bleaching a Mechanical Pulp with Hydrogen Peroxide", of *D. Lachenal et al.*;
- 21. U.S. Patent No. 4,898,642, issued February 6, 1990, entitled "Twisted, Chemically Stiffened Cellulosic Fibers and Absorbent Structures Made Therefrom", of *D.R. Moore et al.*;
- 22. U.S. Patent No. 4,915,785, issued April 10, 1990, entitled "Single Stage Process for Bleaching of Pulp with an Aqueous Hydrogen Peroxide Bleaching Composition Containing Magnesium Sulphate and Sodium Silicate", of G.J. Simoski et al.;
- 23. U.S. Patent No, 4,938,842, issued July 3, 1990, entitled "High Consistency Peroxide Bleaching", of P. Whiting et al.;
- 24. U.S. Patent No. 4,976,819, issued December 11, 1990, entitled "Pulp Treatment Methods", of *M.L. Minton*;
- 25. U.S. Patent No. 5,211,809, issued May 18, 1993, entitled "Dye Removal in Oxygen Color Stripping of Secondary Fibers", of R.C. Naddeo et al.;
- 26. U.S. Patent No. 5,244,541, issued September 14, 1993, entitled "Pulp Treatment Methods", of *M.L. Minton*;
- 27. U.S. Patent No. 5,296,100, issued March 22, 1994, entitled H<sub>2</sub>O<sub>2</sub>/Alkaline Bleaching of Wood Pulps", of M. Devic;
- 28. U.S. Patent No. 5,348,620, issued September 20, 1994, entitled "Method of Treating Papermaking Fibers for Making Tissue", of M.A. Hermans et al.;

- 29. U.S. Patent No. 5,384,011, issued January 24, 1995, entitled "Process for Crosslinking of Cellulosic Fibers", of S.J. Hazard, Jr.;
- 30. U.S. Patent No. 5,384,012, issued January 24, 1995, entitled "Process for Crosslinking of Cellulosic Fibers", of S.J. Hazard, Jr.;
- 31. U.S. Patent No. 5,501,768, issued March 26, 1996, entitled "Method of Treating Papermaking Fibers for Making Tissue", of M.A. Hermans et al.;
- 32. U.S. Patent No. 5,571,377, issued November 5, 1996, entitled "Process for Peroxide Bleaching of Chemical Pulp in a Pressurized Bleach Vessel", of *P. Tibbling et al.*;
- 33. U.S. Patent No. 5,709,774, issued January 20, 1988, entitled "Heat Treted High Lignin Content Cellulosic Fibers", of S.A. Naieni;
- 34. U.S. Patent No. 5,755,926, issued May 26, 1998, entitled "Integrated Pulping Process of Waste Paper Yielding Tissue-Grade Paper Fibers", of C.W. Hankins et al.;
- 35. U.S. Patent No. 5,772,845, issued June 30, 1998, entitled "Soft Tissue", of *T.E. Farrington, Jr. et al.*;
- 36. U.S. Patent No. 5,834,095, issued November 10, 1998, entitled "Treatment Process for Cellulosic Fibers", of *J.Dutkiewicz et al.*;
- 37. U.S. Patent No. 5,858,021, issued January 12, 1999, entitled "Treatment Process for Cellulosic Fibers", of *T. Sun et al.*;
- 38. U.S. Patent No. 5,893,525, issued April 13, 1999, entitled "Refiner Plate With Variable Pitch", of *Gingras*;
- 39. U.S. Patent No. 5,997,689, issued December 7, 1999, entitled "Method of Pre-Treating Secondary Fibers with Oxygen in a Dispenser", of *M. Bokstrom*; and
- 40. U.S. Statutory Invention Registration No. H1704, published January 6, 1998, entitled "Modified Cellulose Fiber Having Improved Curl", of *P.R.R. Wallajapet et al.*

#### **Publications**

- EPO Publication No. 0 096 460 A2, published December 21, 1983, entitled "Process for Improving and Retaining Pulp Properties", of M. Barbe et al.;
- 2. EPO Publication No. 0 101 319 A2, published February 22, 1984, entitled "Fibrous Webs of Enhanced Bulk and Method of Manufacturing Same", of R.J. Eber et al.;
- 3. EPO Publication No. 0 252 650 A2, published January 13, 1988, entitled "Twisted, Stiffened Cellulosic Fibres, and Absorbent Structures Made Therefrom", of *D.R. Moore et al.*;

- 4. EPO Publication No. 0 440 472 A1, published August 7, 1991, entitled "High Bulking Resilient Fibers Through Cross Linking of Pulp Fibers with Polycarboxylic Acids", of *B.J. Kokko*;
- 5. French Publication No. 2,747,406, published October 17, 1997, entitled "Procede de Delignification a l'Oxygene D'Une Pate a Papier, of *P. Larnicol et al.*;
- 6. WIPO Publication No. WO 96/20308, published July 4, 1996, entitled "Bleaching of Filled Paper, of D.K. Drummond;
- 7. WIPO Publication No. WO 94/20674, published September 15, 1994, entitled "Chemical Paper Pulp Delignification Method", of *J. Devenyns et al.*; and
- 8. WIPO Publication No. WO 98/27269, published June 25, 1998, entitled "Treatment Process for Cellulosic Fibers", of *S-H. Hu*.

Respectfully submitted,

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October 29, 2003

#### SERIAL NO. ATTY DOCKET NO. 2159-A (FJ-99-39A) 10/625,086 INFORMATION DISCLOSURE CYTAPION Jeffrey A. Lee (Use several sheets if necessary) FILING **GROUP** MOV 0 3 2003 July 23, 2003 1731 U.S. PATENT DOCUMENTS FILING DATE \*EXAMINER SUBCLASS NAME CLASS DOCUMENT NUMBER IF APPROPRIATE INITIAL 92 20 U.S. Patent 2,008,892 7/23/35 Asplund 92 20 U.S. Patent 2,516,384 7/25/50 Hill et al. 162 24 U.S. Patent 3,023,140 2/27/63 **Textor** 162 28 Henderson et al. U.S. Patent 3,382,140 5/7/68 162 72 Cartsunis et al. 4/21/70 U.S. Patent 3,507,743 Shouvlin et al. 162 19 U.S. Patent 3,773,610 11/20/73 162 23 4/30/74 Logan et al. U.S. Patent 3,808,090 Charters et al. 162 25 3/25/75 U.S. Patent 3,873,412 241 41 4/6/76 Logan et al. U.S. Patent 3,948,449 9 7/19/77 Back et al. 162 U.S. Patent 4,036,679 162 23 2/5/80 Ahrel U.S. Patent 4,187,141 **FOREIGN PATENT DOCUMENTS** TRANSLATION SUBCLASS CLASS DATE COUNTRY DOCUMENT NUMBER YES **D21** C 9/00 12/21/83 **EPO** EPO Pub. 0 096 460 **D21** F 11/00 EPO Pub. 0 101 319 2/22/84 **EPO** 1/13/88 **EPO A61L** 15/00 EPO Pub. 0 252 650 **EPO D21H** 11/20 EPO Pub. 0 440 472 8/7/91 D21 C 9/147 10/17/97 France French Pub.2 747 406 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**EXAMINER** 

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INITIAL	U.S. Patent 4,2	259,148	3/31/81	Beath et	t al.	162	24	IF APPROPI	RIATE
- 1	U.S. Patent 4,4	409,065	10/11/83	Kasser	4	162	9		
	U.S. Patent 4,431,479		2/14/84	Barbe e	t al.	162	9		_
	U.S. Patent 4,4	<b>1</b> 55,195	6/19/84			162	13		
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	U.S. Patent 4,4	188,932	12/18/84	Eber et	al.	162	9		
	U.S. Patent 4,5	548,674	10/22/85	Hagema	(ageman et al.       162       5         Ioldenius       162       71		5		
	U.S. Patent 4,7	/34,160	3/29/88	Molden			71		
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	U.S. Patent 4,9	)15,785	4/10/90	Siminos	ki et al.	162	78		
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INTIAL	U.S. Patent 4,938,842	7/3/90	Whiting et al.	162	78			
	U.S. Patent 4,976,819	12/11/90	Minton	162	9			
	U.S. Patent 5,211,809	5/18/93	Naddeo et al.	162	6			
	U.S. Patent 5,244,541	9/14/93	Minton	162	28			
	U.S. Patent 5,296,100	3/22/94	Devic	162	78			
	U.S. Patent 5,348,620	9/20/94	Hermans et al.	162	9			
	U.S. Patent 5,384,011	1/24/95	Hazard, Jr.	162	9			
	U.S. Patent 5,384,012	1/24/95	Hazard, Jr.	162	9			
	U.S. Patent 5,501,768	3/26/96	Hermans et al.	162	9			
	U.S. Patent 5,571,377	11/5/96	Tibbling et al.	162	52			
	U.S. Patent 5,709,774	1/20/98	Naieni	162	9			
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U.S. PATENT DOCUMENTS								
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	U.S. Patent 5,755,926	5/26/98	Hankin	s et al.	162	6		
	U.S. Patent 5,772,845	6/30/98	Farring	ton, Jr. et al.	162	109		
	U.S. Patent 5,834,095	11/10/98	Dutkiev	vicz et al.	428	191		
	U.S. Patent 5,858,021 1/12/99		Sun et al.		8	125		
	U.S. Patent 5,893,525 4/13/99		Gingras		241	298		
	U.S. Patent 5,997,689	12/7/99	Bokstro	om	162	6		
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CERTIFICATE OF MACONING Applicant(s): Jeffre A. L		Docket No. 2159-A (FJ-99-39A)						
Serial No.	Filing Date	Examiner Group		Group Art Unit				
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Invention: METHOD OF BLEACHING AND PROVIDING PAPERMAKING FIBERS WITH DURABLE CURL								
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